

Vitrebond Plus Light Cure Glass Ionomer Liner/Base (3M/ESPE) (Project 06-18) (5/07)

Vitrebond Plus Light Cure Glass Ionomer Liner/Base is a two-part liquid/paste material dispensed from the 3M/ESPE Clicker Dispensing System, which is advertised to provide consistent component mixing ratios. The liquid component of Vitrebond Plus Liner/Base is said to consist primarily of the same resin-modified polyalkenoic acid, HEMA, water, and initiators (including camphorquinone) as those in the original Vitrebond Liner/Base. The paste is a combination of HEMA, BIS-GMA, water, initiators, and a radiopaque fluoroaluminosilicate glass. 3M/ESPE claims that the fluoroaluminosilicate glass in Vitrebond Plus is formulated differently from that in Vitrebond, which results in a product with slightly lower radiopacity and physical properties. 3M/ESPE says that Vitrebond Plus is indicated as a liner/base material for use with composite resin, amalgam, ceramic, and metal materials; however, it should not be used as a direct pulp capping material.



Manufacturer:

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Suggested Retail Price:

\$160.79 Vitrebond Plus Light Cure Glass Ionomer Liner/Base Single Pack (Item #7571) contains:

- 1 Clicker Dispenser
- 1 Large Mix Pad
- Instructions
- Technique Card

\$267.49 Vitrebond Plus Light Cure Glass Ionomer Liner/Base Double Pack (Item #7572) contains:

- 1 Clicker Dispenser
- 1 Large Mix Pad
- Instructions
- Technique Card

Government Price:

\$125.42 Vitrebond Plus Light Cure Glass Ionomer Liner/Base Single Pack (item number and contents as listed above)

\$208.64 Vitrebond Plus Light Cure Glass Ionomer Liner/Base Double Pack (item number and contents as listed above)

ADVANTAGES:

- + Consistent and dependable delivery of material components
- + Easier to prepare than traditional Vitrebond powder and liquid
- + Material viscosity is improved compared to that of the time-tested traditional product (Vitrebond Liner/Base)
- + Flexure strength and modulus are comparable to those of the traditional product (Vitrebond Liner/Base)
- + Simulated environmental cold storage did not adversely affect physical properties

DISADVANTAGES:

- Not tolerant to high-temperature storage
- More expensive than Vitrebond and GC Fuji Lining Paste Pak
- May be difficult to distinguish from dentin radiographically

SUMMARY AND CONCLUSIONS:

Vitrebond Plus Light Cure Glass Ionomer Liner/Base is a resin-modified glass-ionomer liner/base that offers a simplified paste/liquid delivery system using the 3M/ESPE "clicker" device. Vitrebond Plus contains only a few modifications from the traditional Vitrebond and was found to have comparable physical properties. It also exhibits the same glass-ionomer polyalkenoate acid-base reaction. Clinical users were very enthusiastic about its simplified delivery system compared to the conventional Vitrebond Liner/Base, noting that it produced a simpler and more consistent mix. A number of evaluators commented that they felt the material's viscosity was improved. In testing, Vitrebond Plus was found to have slightly less radiopacity than Vitrebond, which is similar to dentin. This may make distinguishing between Vitrebond Plus and dentin more difficult radiographically. While being more expensive than Vitrebond, Vitrebond Plus has excellent potential to meet the unique needs of the dental expeditionary mission. It should not, however, be stored in pre-positioned locations because it is sensitive to prolonged high temperature. **Vitrebond Plus Light Cure Glass Ionomer Liner/Base** is rated **Excellent** for use in US Air Force dental facilities.